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18/10

VICK'S

ILLUSTRATED MONTHLY

MAGAZINE.

DEVOTED TO THE PROFITABLE CULTURE OF FLOWERS AND VEGETABLES.

Vick Publishing Co.
Fifty Cents Per Year.

ROCHESTER, N. Y., AUGUST, 1895.

{ Volume 18, No. 10.
New Series.

VICK'S FALL CATALOGUE

1895. LIBRARY.

Full description of and instructions when and how to plant all varieties of **Fall Bulbs** for house and outdoor culture. Winter flowering plants for the house.

A large variety of Grapes, Strawberries, Raspberries, Blackberries, Gooseberries, Currants, and Small Fruits of all kinds.

Seeds for fall planting, and everything necessary for the house and garden.

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Selected named Bulbs, not common cheap varieties usually sold in collections. Any or all will flower in the house during the winter, or nearly all if planted out doors before frost will bloom in the spring. Perfectly hardy, except the Freesia and Roman Hyacinth.

JAMES VICKS SONS, Rochester, N. Y.

VICK'S MAGAZINE.

Vol. 18.

ROCHESTER, N. Y., AUGUST, 1895.

No. 10



BUTTERFLY ROVER.

*In August sunshine sweet
I, on gay wings and fleet,
Flutter and hover,—
Seeking the blooms most fair
'Mong Flora's treasures rare—
Playing the lover.*

*All the long hours thro',
I dainty blossoms woo,
Oftentimes stealing
Sighs from the heart of this,
Nectar there, here a kiss,—
Love's tender dealing.*



*Buttercups, and daisies white,
When summer's over quite
I must be leaving;
Pansies, all dewy-eyed,
Violets that coyly hide,
Are you a-grieving?*

—J. Torrey Connor.

TRY BULBS.

LF you have never tried them, let me urge you to try a few bulbs in the house this fall. Many people have the impression that it is difficult to succeed with the bulbous plants in the house, and it may be with certain kinds. You would be likely to meet with failure if you tried to grow gladioli or tuberose in your winter garden, because they are not at all adapted to house culture.

If you are an amateur, confine your first venture in bulbs to hyacinths, freesias and daffodils. You may, under certain conditions, succeed with tulips; if you try them select the single varieties. The Bermuda or Easter lily can be cultivated in the house by the amateur who is willing

to learn how to grow this bulb. If you want to try an Easter lily this fall get a good, sound bulb to begin with. If you have but one, put it into a six-inch pot, using soil composed of one-third each of sand, well rotted manure and good garden soil. Mix this well and you will have a soil in which all of the bulbs I have named will grow. Set the Easter lily bulb so far down in the pot that it will be several inches under the soil. Press it down firmly over the bulb, and when potted set the bulb away in a cool dark place in the cellar, if you have one, for roots to form. Do not bring it into the light until the green shoots appear above the soil. All bulbous plants like as much moisture as they can get, and few of them will thrive in a high temperature. If you can keep them in a room adjoining one in which a fire is kept it will be better than to have them in a room with a stove. Most house plants suffer from too high

a temperature and bulbous plants are peculiarly susceptible to heat. The bloom is apt to be stunted in a warm room.

None of the bulbs I have named will be more satisfactory than the little freesia. Its flowers are very graceful and exquisitely fragrant. It will cost you but a small sum to try two or three of all of the bulbs I have named, and if you succeed with them once you will never be without them again.

Don't trust to the "bargain counter" if you want good, reliable tulips, hyacinths, daffodils or any other kind of bulbs. One of my friends, scornfully heedless of this advice given her last fall, purchased some splendid (?) tulip bulbs for a cent apiece, and hyacinths for twenty cents a dozen, while an Easter lily bulb, sure to bloom, cost her but ten cents. Of course it was "all nonsense" to pay more than double these prices to the regular dealer. But as the proof of the pudding is in the eating so the proof of the value of bulbs is in the flowers they produce, and, somehow, the blossoms on my friend's bargain bulbs didn't materialize, although the bulbs were given faithful and intelligent care. It would have been rude and unkind for me to have said "I told you so," although I had told her that this would be the probable result. Some of the bulbs were soft and spongy, but others looked promising enough. There was, however, an "out" about all of them as the sequel proved.

If you want genuine bulbs send your order to a reliable dealer and then you can "come back at him" if the bulbs prove to be utterly worthless after you have given them proper care.

Get your order in early in September to "avoid the rush." Be wise and generous enough to pay a good price and you will get good bulbs.

MAX.

A BEAUTIFUL LEAVED PLANT.

A PLANT disseminated in this country the past spring bearing the name *Strobilanthes Dyerianus*, is very promising, both for house and garden culture. At this time, July 9th, a plant set in the garden in May is not yet in bloom, though it is growing finely. The foliage of this plant, however, is enough to satisfy one, even without bloom. The leaves are from six to eight inches or more in length, with pleasing colors of metallic purple with shades of violet and rose all over the central part, while the margin is a handsome green. The plant is now branching, and it is said to form a compact bush eighteen inches high. It was set out early in May, and thus bore the frosts which visited us here about the middle of the month; although the foliage was discolored no leaves were lost. The flowers are said to be very beautiful, of a violet-blue color, and in form something like those of the gloxinia. The young plant in a pot stood in a window for a month before planting out and there grew nicely with no particular care. It will be watched with interest for the rest of the season.

OUR COMMON MOLDS.

THE most careful housewife, in spite of her devotion to domestic duties, often finds her pantry invaded by a most unwelcome form of vegetation. Her preserves, which were made with such pride, cake, pie, bread, in short everything one finds in a well-filled pantry, are only too often besieged by this unbidden guest which we call "mold." But what it is, where it comes from, and how it comes, have been

enough that weeds should grow in our gardens, for seeds are scattered hither and thither in countless numbers, but how could plants grow on pie, cake, bread, or anything that is set away for the next meal, and, alas, is forgotten until it begins to decay, when, presto! it is touched as by a breath of life and a fairylike forest appears! As peculiar as this vegetation is, it is made up of veritable plants which have their successive cycles of existence, their permanent though polymorphic forms, and definite phases of life;

farther, little dreaming of the beauty which exists, invisible to the naked eye, in a piece of moldy bread; unconscious of the activity of life and the changes that are constantly being wrought by these infinitesimal forms.

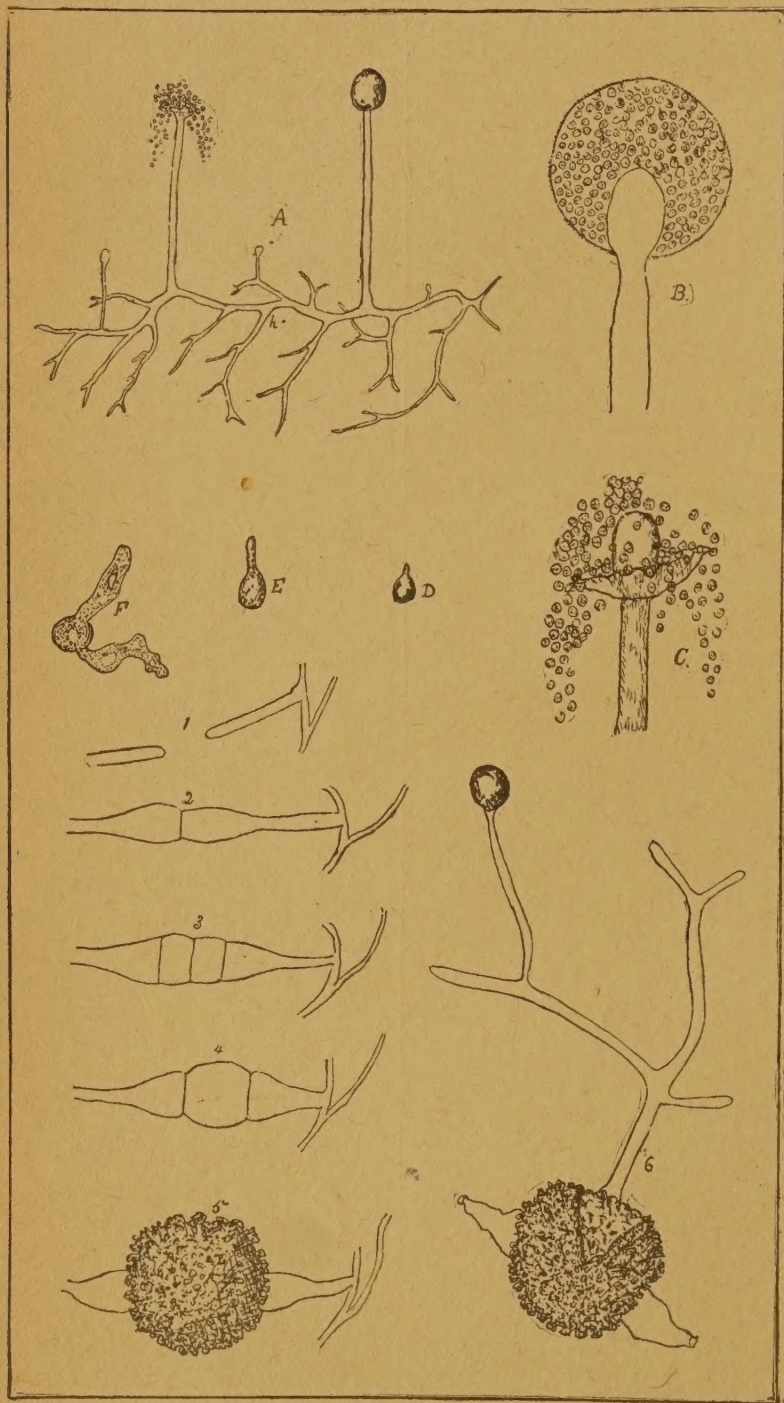
But there is a wide difference between the weeds in our gardens and the mold in our pantries; or, in other words, between flowering plants and fungi. The former produce seeds and contain chlorophyll; the latter produce spores and are destitute of chlorophyll. These spores answer the same purpose as seeds, but they are different anatomically considered. There is simply a tiny bit of protoplasm or metaplasm (a substance rich in formative material) enclosed by a cellwall of cellulose. The spore contains no embryo like the seeds of flowering plants, but grows by a pushing out or prolongation of the cell-wall caused by the activity of the protoplasm within.

But since the fungi contain no chlorophyll they cannot assimilate inorganic matter; that is, they cannot convert the lifeless, inorganic matter or mineral constituents into organic matter and must therefore obtain it already prepared. When they take their nourishment from decaying or decomposed organic substances, as most of the common molds do, they are called *saprophytic*, and when derived from living organisms they are called *parasitic*.

One of the most interesting things in the development of very many of the fungi is the polymorphism or different stages of growth of one and the same plant; the most common and familiar example of which is found in the cluster-cups of the barberry and the red and black rust of wheat, all being simply three different stages in the growth of *Puccinia graminis*. That on the barberry is the first to appear, and is known as the *æcidium* stage; this form produces spores, which, blown about by the wind, fall upon the wheat plant and germinate, giving rise to another kind of spores, called *uredo* spores, commonly known as the red rust. From this red rust, or the *uredo* spores, grow finally still another kind which live through the winter and form the black rust of wheat. These are called *teleutospores*, and from them the *æcidia*-spores, or first form, is again produced—a very strange, complex history, and one which mycologists puzzled over long, before they were able to read. From this process of growth and reproduction we learn that even these plants, small as they are, make a fierce struggle for existence, and many of them, to ensure their continuation, multiply in different ways,—the same plant producing what are known as sexual and non-sexual spores.

One of the most common molds is *mucor stolonifera*. The first indication of its presence is a covering made up of fine silky white threads which partly permeate the matrix or nourishing substance; this is called the *mycelium*. From this grow large erect threads or *hyphæ*, and upon the tips of these *hyphæ* little globose heads are formed, which become filled with protoplasm and are plainly visible to the unaided eye; these little heads are called *sporangia*. It is in these *sporangia* that the spores are formed. This is the non-sexual method of multiplication.

The sexual spores are produced by the union



A—magnified Hypha, crowned with Sporangia. B and C—greatly magnified Sporangia. D, E, G—different stages in germination of non-sexual spores. 1-5—Different stages in development of sexual reproduction. 6—Germinating Zygospore, producing the first form or non-sexual spores.

vexing questions with many a woman, when she has been obliged to do double duty, as it were, by re-boiling her sweetmeats or re-baking her bread. And solving the mystery seems but to increase the wonder, for to learn that the delicate covering of mold is made up of microscopic plants, seems incredible. It is plain

plants of a low organization it is true, but still more complex in their development than one who has not made a study of them would suppose.

When we see our delicacies covered with mold we are likely to say as Topsy did of herself, "Spect it growed," without investigating

of two separate filaments or hyphæ. The tips first become enlarged, then grow towards each other, and are finally merged into one, the cell-wall at the point of contact being absorbed; the spore formed by this union is called a *zygospore*. It is much larger than the ordinary spores, and has stronger reproductive power. It is enclosed by a double cellwall, which enables it to endure severe climatic changes. After a season of rest or ripening, it again produces a new generation of plants, which in turn generate the non-sexual spores most prodigiously.

Another mold which grows on almost any thing, from preserves to old shoes, is the common blue mold called *Penicillium crustaceum*. The history of its development is as interesting as the plant is common. A mycelium first appears on whatever material is at hand, whether it be clothes which have been put away while damp, a newspaper left in the rain, or a dish of fruit left too long undisturbed.

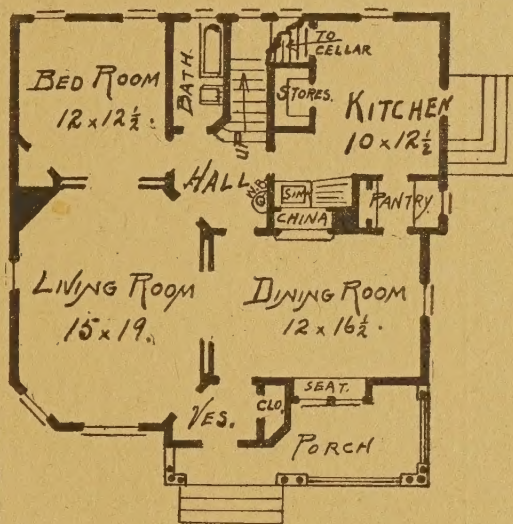
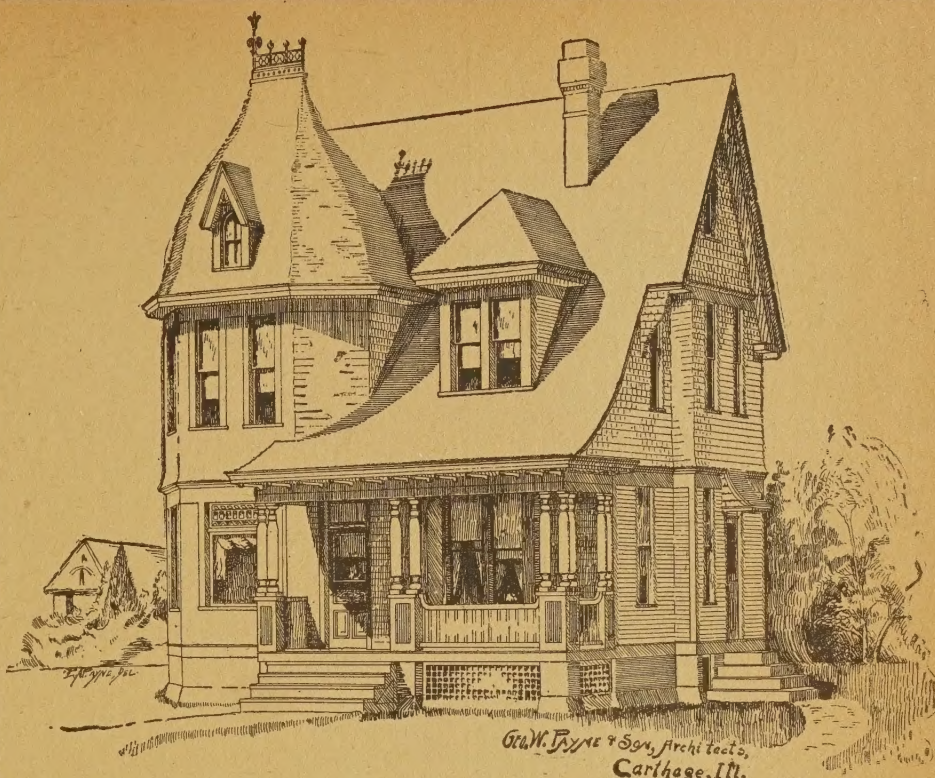
Fruit stalks, or erect hyphæ, soon grow up from the mycelium, but instead of the spores being formed within a sporangium, long chains of greenish gonidia are produced at the extremities; as they ripen and fall away from above, new ones are formed below, the multiplication continuing indefinitely.

Then, from other threads of this same mycelium the sexual spores are produced. Two threads will coil around each other and become fertilized; they are called the *antheridium* and *ascogonium*. From the base of this coil grow other threads which branch and continue growing and branching until the fertilized part is entirely surrounded by a mass of mycelium, which is called the *perithecium*, and serves as a protection, and at the same time as reserve material to nourish the developing spores. Many-celled fertile filaments now grow out from the ascogonium, from which thick sprouts or branches proceed, and these are finally developed into rounded bodies called *asci*, each ascus containing eight spores, which after considerable lapse of time, from three to six months, are set free by the bursting of the perithecium.

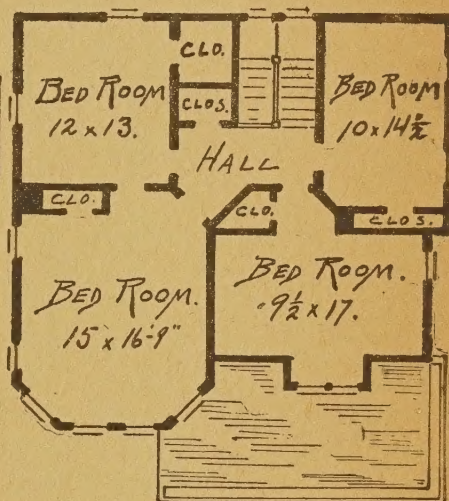
Sometimes, instead of the ordinary mold we find a remnant of starch-pudding or similar substance spotted with blood-red patches. This singular appearance is due to a species of the so-called bacteria known as *Micrococcus prodigiosus*. It never appears on uncooked food. In ancient times it attracted much attention, being called "the blood of bread," or the blood wonder," and gave rise to numerous superstitions. It appears under the microscope as simple, round cells, colorless themselves, but producing a red pigment. This micrococcus is soon crowded out by other bacteria of putrefaction, which destroy the red color. Thus there seems ever to be some living thing following close upon the life course of another. When one has accomplished its work, immediately other forms spring into life and carry the work on farther.

Whether in the fermentation of a liquid, or the decomposition of any substance, wherever decay sets in, there innumerable germs are found ever ready to assist in the work of tearing down and clearing away. Nature often seems most wonderful in her lowliest forms, "where in an unseen world everything is adjusted with such perfect law that notwithstanding the apparent individual conflicts, harmony reigns through all."

MRS. W. A. KELLERMAN.



FIRST FLOOR.



SECOND FLOOR.

AN ATTRACTIVE COTTAGE HOME.

It is the actual area of the ground covered by the building upon which the cost is estimated. In building small and inexpensive houses, simplicity in the arrangement of rooms and the exterior appearance must be the guide. Rich ornament and details are of necessity prohibited and would really be out of place. The suggestions given in the design here shown are for a moderate cost cottage, but embodying the features of a comfortable home with the air of comfort, neatness and refinement in effect very gratifying to the tastes of those who are a home loving people. It illustrates what can be done by the careful and judicious expenditure of modest sums. The rooms are all of fair size and convenient of access and communication. The materials used in the construction are of the best throughout. We enter from the front through a porch and vestibule into either the dining room or parlor. Back of the parlor is a good sized bed room, and back of the dining

room is the kitchen. The passage from the kitchen to the dining room is through the pantry. The room is well equipped with all the modern accessories. The first story also contains a small bathroom in which are located a bathtub and water closet. The wash bowl is placed in the hall or lobby. Rising from this hall is the stairs to the second story. The stairway above the first landing is nicely finished in open work. From the upper hall are accessible four nice bed rooms. Cellar is provided under the whole house, with stairs leading down from the kitchen under the main stairs. Size of the house is 35x38 feet. Height of ceilings, cellar 6 1/2 feet; first story 9 1/2 feet; second story 8 1/2 feet. Painting is of three coats. Plastered with cement plaster. Trimmed inside with natural finished woods in hard oil; first story in sycamore and yellow pine and second story in white pine. Cost complete \$1,500 to \$1,600. Any further information as to plans, etc., will be gladly supplied by Geo. W. Payne & Son, architects, Carthage, Illinois.

AMONG THE PINEAPPLES.



INEAPPLES are grown in many parts of Florida, by protecting the plants through "northers," and after one gets as far south as the lower Indian River and Lake North regions quite large patches of them may be seen. But to see this king of fruits at perfection you will have to go to Biscayne, and especially the Keys, as all the Low islands in this part of Florida are known. While very fine pines are grown from Miami south on the mainland, on the Keys they are grown by the hundreds of acres and to a higher degree of perfection than I have ever seen in the tropics. These Keys are of themselves one of the wonders of nature, formed by the coral insects, and are even more rocky than the mainland; like a great honey-comb, with a thin covering of rich soil and the densest of vegetation, only equaled in this respect by the tropics. All along the front of these Keys facing the ocean is a high beach ridge, back of this the land rapidly slopes and is only a few feet above tide water. On the ridge is where the planter builds his house, always surrounded by luxuriant cocoa plams, and in front of his house the wharf with his schooner anchored some distance from shore; frequently the road leading from the house to the wharf is lined by rows of cocoa-nuts forming an avenue of rare beauty.

The pineapple growers are nearly all from the Bahama islands, or at least their ancestors were, and are known in this part of Florida by the name of "Conchs," presumably for their liking for a stew made from that mollusk; however that may be, they are a very respectable sort of people and almost the only inhabitants of the Keys.

The first person to engage in the growing of the pineapple for profit was the late Benjamin Baker, who planted the first patch of any size about 1860, on Plantation Key, and his great success and the high prices he received soon induced others to plant, until now some growers number their plantations by the hundred acres. Most of my readers doubtless have seen the fruit of the pineapple and know that the bunch of leaves at the top—called the crown—will grow if planted; the base of the fruit is surrounded by sets like the crown, but not so large, and when the fruit is cut these are left on the stalks to grow until the planter is ready to set them, generally in August or September; these are the main supply for new plantations, though suckers are also used which spring from the root of the old plant. The pineapple, like the banana, dies after producing fruit, generally two to four from each plant, which are all taken off but one. The soil is so rocky that plowing or cultivation with the hoe is never attempted, and no attempt is made to set the plants in regular rows, but wherever the planter finds a "pocket" or little hole in the rock there he plants a set, endeavoring to have them two or three feet apart each way.

At the time of planting the pines, wherever

the planter finds a hole of unusual size and with sufficient soil in it, he plants therein a young banana plant or lime or sapadillo, so that by the time the pineapples have become unprofitable and cease to produce good fruit, the trees are of bearing size and produce great quantities of fruit until the soil becomes exhausted.

The pineapples are not cultivated, as the rocky character of the soil prevents that, and the only care they get after setting is to keep the weeds pulled out. The plants grow very rapidly during the warm moist summers, and I have seen great fields of them where they would measure five to six feet in height, and a more impenetrable jungle would be hard to find, for if it is true that "There is no rose without a thorn," it is certainly doubly true in regard to the pineapple; a row of spines on each edge of every leaf. As may be imagined this makes working among them very disagreeable, and the men generally wear overalls made of the heaviest duck, and sleeves and gloves of the same material.

The pineapple plant when grown from sets generally commences to bear in about eighteen months after planting. The blooming season on the Keys is generally during January and February, when the fields present a beautiful picture. As the time approaches for the flower stalk to appear, the center leaves of the plant assume almost every color of the rainbow, the most gorgeous shades of scarlet, red, yellow, and purple, and soon in the center of the plant among the leaves a bud appears, like a little rosette of leaves of the most glowing scarlet imaginable; this soon assumes the shape of a small pineapple with its crown of leaves, and then the flowers appear, one at each protuberance or eye, and of a bright purple color.

The fruit now rapidly develops in size and is ready to ship during April and May. The fruit is not allowed to ripen on the plant, but is cut as soon as it is full grown. The mosquitoes are such a terrible pest in this part of the country that it is impossible for the planters to keep horses, so that most of the pineapples are carried to the schooners in great baskets borne on the heads of the workmen. They are packed closely in the hull of the vessel in such a manner as to prevent bruising, and are then shipped to the great northern cities, principally to New York.

During the spring and summer of 1887 the yellow fever was severe at Key West, and in consequence all the northern ports were closed to this part of the coast, and the pineapples lay in the fields and rotted by millions. I never knew of so much fruit to be lost, and often thought what a pity the planters did not have a cannery to work it up. I have always been a great lover of fruit, and probably few persons have tasted or eaten of so many varieties of temperate, semi-tropical or tropical fruits as I have, but of all I consider the pineapple the King of Fruits,—not, however, the miserable excuses for it which one buys in the northern cities, which in order to stand shipment have to be pulled weeks before they are ripe, and in order to eat them one has to smother them in sugar until they have barely a resemblance to the fruit that is allowed to ripen on the plant; such

fruit is superb indeed, and on a calm day one does not have to see an apple to know that a ripe one is in the vicinity, as you will perceive its most delicious fragrance long before you reach it, and when you pluck the great mellow, yellow fruit and carve it and the juicy flesh melts in your mouth, you will agree with me that no words can describe the lusciousness of a perfect pineapple.

There are many varieties of the pineapple differing much in size, quality, color and shape. The one known as the Red Spanish is the principle variety grown for market, is more acid than others, but when well ripened on the plant is very fine. One of the finest is the Porto Rico, a very distinct sort and the largest of all and has been grown to weigh sixteen pounds each on the Keys and is of the best quality. One of the sweetest and best is the Sugar Loaf.

MARTIN BENSON.

THE HARDY MAGNOLIAS.

WE know of two—Soulangeana, creamy white and purple, and Stellata, pure white—both very sweet scented.

For years we have had two magnificent specimens of the variety Soulangeana on the lawn, which have grown from small shrubs to great bushes six to eight feet tall, covered every season with the finest blooms which last a month or more and in which we might take some comfort if it were not for the boys, who trouble us constantly for handfuls of the beautiful, waxy, sweet-scented tulip-like blooms. If we refuse they come at night and take them, and if we accede to the request the same result occurs from those who have not yet visited us, but see them in the hands of others, so that often to save the wreck and spoilage of our beautiful tree-like bushes we are compelled to pick the lovely blossoms and destroy them before they are fully developed.

These plants luxuriate in heat and do not mind any amount of drouth. In fact it seems that the hotter the summer the larger and more beautiful grow the green leaves, which are very glossy, so that without the bloom the plant is one of great ornament and beauty.

We have often been asked when to transplant magnolias. By all means wait till spring. Magnolias should never be moved in autumn. As early in spring as it can be dug, lift carefully so that all small fibrous roots are preserved, protect against sun and wind, and move to the new location with as little delay as possible. They should be kept well watered for the first year or two, until well established, then they will shift for themselves right royally. They thrive best in dry, warm, rich soil.

The buds come in the fall, and are enclosed in a miniature green pocket, which they burst as spring advances and push out their true growth, soon showing the lovely color that is to ripen to such rich and royal beauty. When the plants are young and tender they are better for a little light wrapping in extreme cold weather; but when well established they will not need this or any protection.

Magnolia conspicua is also one of the best varieties, an early bloomer, flowers large, pure white and borne in profusion. H. K.

A UNIQUE WINTER ORNAMENT.

LAST August I went to a clump of sumac bushes and selecting one which stood by itself I cut the sprout off near the ground. It was one which had grown up since the spring before. The next operation was to dig the root carefully from the ground with a large ball of earth on the roots, breaking the rootlets as little as possible. It was then carefully lifted into the buggy and taken home, where it was planted in the half of a fifteen-gallon keg which had been sawed in two.

The soil used was one-third sandy leaf mold and two-thirds thoroughly rotted cow manure, —a very rich mixture, you see,—and this was packed in close about the ball of earth enclosing the roots. A part of this ball had been shaken off before placing in the tub, care being taken not to break the roots. Thorough watering was all the attention required, and in about two weeks a young sprout was pushing through the soil. By December 1st this shoot had reached a height of five feet, and all who have noticed the young growth of sumac in moist, rich soil can form some idea of its beauty.

The tuft of leaves at the top of the shoot consisted of twenty-three stems, and later in the winter numbered thirty-one, spreading in every direction into an umbrella-shaped top nearly six feet in diameter and of a rich dark green color. It was truly a thing of beauty, and people seeing it could scarcely be made to believe it was nothing but a sumac. There was no palm in my collection that could compare with it. The prime necessity to its success was the very rich earth I gave it, together with plenty of water during the warm autumn months. I would advise the many readers of VICK'S to try it this year if possible, as you will lose but a trifle in time and effort if you fail, and if you succeed it will furnish you a fund of satisfaction entirely out of proportion with the trouble it will occasion.

We had an excessively dry and very changeable spring here in Indiana, with severe frosts in May and changes of temperature varying from 95° in the shade on one day to 45° to 50° the next day. As a consequence both vegetable and flower plants are for the most part doing but little. Nevertheless I have been gathering peas since May 25th, and petunias, nicotiana, poppies, and verbenas were in bloom June 10th, although it has required considerable effort to guard them against the unfavorable action of the weather. I planted the so-called early peas first, several varieties, and in rows beside them planted the Bliss' American Wonder and this pea was only three days behind the first in maturing, and was ready for use before some of the others. Perhaps the season had something to do with it, but these are the facts in the case.

I noticed that an Iowa correspondent com-

plained that *Deutzia gracilis* was not hardy with him. I think perhaps there is something else at fault in the destruction of the shrub rather than the low temperature. I lived for some years near Wall Lake, Iowa, which is considerably farther north than the home of the correspondent referred to, and I observed many specimens of *D. gracilis*, as well as other *Deutzias*, and they were alive even to the tips of the branches and loaded with bloom. Protection from wind and good cultivation sometimes are good preventives of "winter killing," and neglect of these points kills more plants than low temperature. Shrubs and trees are much more apt to feel the effect of severe cold when the ground is dry in the fall and winter as the result of drouth.

S. L.



CERASTIUM TOMENTOSUM, OR MOUSE-EAR CHICKWEED.

A FINE EDGING PLANT.

A LOW-GROWING herbaceous plant which is very little known generally, but worthy of attention, is the *Cerastium tomentosum* or Mouse-ear chickweed. It is a perennial plant and blooms the last of May or early in June, sending up numerous stems bearing pretty, white flowers. The plant belongs to the pink family, and its appellation "mouse-ear" comes from the whitish hairy leaves. Its color and its habit of growth make this plant a very suitable and desirable one for the edging of beds and borders. It is a European plant, but is quite hardy here, bearing the most severe weather uninjured. It is propagated by division of the roots, or by cuttings, in the open ground in a shady place.

HINTS AND HELPS.

ADD a rose geranium to your list of plants for the window garden. Its delightful fragrance and graceful leaves make it one of the most desirable of the geraniums.

If you want one of the very best of winter blooming geraniums try the Mrs. James Vick. I have had it in my winter window garden and it has never failed me yet. The *Souvenir de Mirande* is another fine winter bloomer.

During September and October is the best time to put your bulbs into the ground. If they are to be grown in pots in the house you can pot them later and at different times in order to secure a succession of bloom.

If there is a flower show near you be sure to attend it; you will get valuable suggestions of some kind and will have a stimulus given to your enthusiasm. Exhibit something of your own, if possible.

The Roman hyacinths are admirably adapted to home culture. I prefer them to any other kind.

The *Ornithogalum Arabicum* is a very striking flower. It requires the same culture as the hyacinth, but is not as certain to bloom as the latter. Sometimes an apparently thrifty plant fails to send up any flower stalks, but do not be ungenerous enough to throw all of the blame on the florist when this occurs. "Try again" is hackneyed but good advice.

Improper potting and injudicious watering are the prime causes of failure to succeed with house plants in many cases. Exercise a little judgment, based on information derived from your friends or the floral magazines and failure from these causes will not beset you.

Not many varieties of the fern are adapted to house culture. The sword fern is one of the best. The maiden-hair ferns are far more difficult to succeed with; they require more moisture, and conditions difficult to give them in the ordinary living rooms.

Let no one persuade you to discard the geranium on the ground that it is "so common." It is common, but its beauty and worth

are none the less appreciated by the true lovers of flowers on that account. It is one of the very best of flowers for the amateur and is an ornament to any conservatory or window garden.

The canna is coming into favor as a plant for the window garden. The bloom of some of the new varieties is wonderfully beautiful and the foliage is as handsome as that of any tropical plant.

Nothing is better or prettier as a hanging plant than the oxalis. It grows so readily and its pink, white and yellow flowers are very dainty and pretty, while the foliage is graceful and glossy.

The nasturtium grows in favor as a flower for the window garden. The trailing kinds are fine for twining around a window, and the dwarf varieties are excellent for pots. They readily lend themselves to house culture and are sure to grow if given intelligent care. L. L. L.

Letter Box.

In this department we shall be pleased to answer any questions relating to Flowers, Vegetables and Plants, or to publish the experiences of our readers. JAMES VICK

Lilies and Crown Imperial.

When is the right time to plant lily seed, Crown Imperial, and how deep must they be covered?
Belpre, Ohio. G. B.

These plants are raised from bulbs, which may be planted in September, October, or November.

Hibiscus Sunset.

My hibiscus Sunset has lost all its deeply cleft, narrow leaves; the leaves now are something like ordinary maple leaves. Can you tell me the reason? It is apparently healthy. For a while last winter it had both kinds of leaves on it at the same time.
Canada. M. F.

We can only say it is the habit of the plant to make both kinds of leaves at different stages of its growth.

A Low Iris.

In the June number of the Magazine there is an article on The Iris Border, signed M. M., in which is mentioned the low growing and the tall fleur-de-lis. Years ago, in the old garden at home, there was a long flower bed bordered with a blue flower my mother called "iris." It was very fragrant, particularly when the dew was on it. Since I have had a flower garden of my own I have tried on several occasions to get this same iris, but without success. The plant grows from four to six inches high. There is both a blue and a yellow variety.

Can you furnish me with the address of M. M.?
South Bend, Ind. MRS. V. N.

It is probably *Iris pumila*.

A Curious Plant.

I write to make inquiry about a curious plant that I have not seen for almost thirty years. It was a small vine growing about two feet high and was of a dark green color, bearing small green buds resembling snail shells. I fear they are not to be found, as I cannot find it in any of the floral guides,—they were called snailvines, and were a very hardy little vine. I have planted seeds from your seed house for twenty-five years and have always had good luck.

Leechburg, Pa.

M. B. D.

The plant is *Medicago scutellata*, or possibly *M. procumbens*. It is closely related to lucerne, but has no agricultural value. There is so little demand for the seeds that seedsmen do not keep them in stock.

Pæonies and Ants.

As the Magazine comes to me each month, and I read its contents carefully and note the many useful hints given concerning the culture of plants and fruits, I often think that if I was not so neglectful, I might add my mite or suggest something that might be of benefit to others. I noticed in the June Magazine an enquiry from Cabot, Vt., desiring a remedy for black ants on pæonies. I have grown the different varieties quite extensively for some years past, and although there have been ant hills quite near the plants the buds are not injured by them in the least. I used to think I must get rid of the ants, and I once took a teakettle of boiling water and poured it into the homes of the little workers; but my conscience immediately smote me, and I have been unable to think of it since without a twinge, as I well remember how suddenly hundreds, or thousands as it seemed, of the little fellows lay so quiet and lifeless, where only a moment before all had been so lively and happy, and I now consider it was a needless and cruel slaughter. First of all if we wish to secure a profusion of bloom we must have a well enriched soil,—any good fertilizer can be well forked in around the plants, then take a six-quart panful of wood ashes and scatter them on top of the ground, about a foot wide circle, not letting the ashes come in contact with the stems; then I stir the ashes in the top soil slightly. I have a great many pæonies and each plant has at some time had its one panful of ashes. If the ashes are put around the plants in the spring it must be done very early in order to be effective. If they are applied just before blooming time, or when the

ants have already commenced to sap the buds it does not seem to do any good. I often apply the ashes in the fall and then the soil around the plant is well impregnated by spring. The frost injured the blooms this spring for the first time in a great many years; some kinds were uninjured, while others only had a few blooms. The pæony is at home in Minnesota,—the Chinese varieties especially thrive in our rich, black soil, and it is no trouble to grow them as they are entirely hardy, and after one season's growth they require no protection in winter. I use a mulch of leaves over new fall set plants to keep the frost from heaving them in spring, as it will sometimes do when they are not well rooted. My pæony buds never blight, but the plants bloom profusely, and by having a variety I have them a long time in blossom.
Medo, Minn. MRS. L. W.

Violet Culture.

In the spring I received from you a floral paper giving some information on violet culture; but I gave it to a friend amateur florist for reference, and so cannot refer to it as I would like to now. Would you be willing to give me some desired information regarding violet culture? I should like very much to raise them for the market. Do you think they can be successfully raised in a pit two feet below the surface ground with a peaked frame and kept from freezing in the winter without other heat? If they could it would make less expense and less work. The soil is sandy, but could be brought up to a rich standard by barnyard fertilizer. I have the land and enough money to start in a small way, but not much strength. I am a woman of middle life and would like to enter into the business if I could make it pay by starting with 500 or 1,000 plants at first; but would have to hire help as I am not strong. Would it pay to hire a man all the time? Could I get large plants in the early fall that would be in good condition for all winter blooming, commencing in November? If they would not freeze in a pit two feet below the surface my idea is they will have a more even temperature in winter and cooler in summer. It would be a favor to receive an answer giving what information you can.
West Hampton Beach, L. I. MRS. H. H. W.

We should take the greatest pleasure in being of any real help to one undertaking a special line of culture, as proposed in this case, and to answer these inquiries directly will say that undoubtedly a pit, such as described, would carry the violets through the winter all right. As to planting in the fall it would be difficult, if not quite impossible to get plants at that time which would be suitable for planting the beds. Plants for this purpose should have been set out early in spring in good soil and thus prepared as strong plants for careful removal to the pit in the fall. On the other hand we cannot encourage our enquirer to undertake this business, for two reasons: First, she has no knowledge of it, and this is sufficient to forbid the undertaking. The competition in this line is very strong and by those who are thoroughly skilled in the work, with years of experience, a commodity which is nearly always dearly bought. Secondly, it would not pay to hire a man to do this work which at the best is but experimental. We dislike to say anything discouraging, but at the same time cannot advise an enterprise under the circumstances here described. If our correspondent can work along quietly by herself for a few years learning how to produce small crops of fine plants, and gradually increasing her facilities as trade may demand, and thus grow into a business, no one will then know better than herself what is the best course to follow, but to make, at this time, the attempt that has been outlined would be apt to lead only to disappointment.

Garden Experiences and Inquiries.

I have just received the July number of your Magazine and read the letters in regard to disease of sweet peas. I have had similar trouble with my vines in one part of the garden. Soon after I noticed the

vines were turning yellow and dying I dug up several and in one case I found a tiny worm curled up like a snail shell. I remember that a number of years ago I had a similar experience with pansies and often found these same worms near the roots. The roots are quite dead and decaying when the tops have turned yellow. Do you think that this worm is doing the mischief and is there any known remedy?

I should like some advice in regard to my roses, hardy and hardy perpetuals. For several years just as the blossoms begin to open they suddenly become covered with bugs, similar in color to the potato bug, striped yellow and white, but smaller and narrower. We have picked them all off at night, perhaps getting a pint from a bush, and in the morning there seem to be just as many. They eat the petals off entirely. I used Fir-tree oil soap a few times, but it did not seem to have any effect; perhaps I did not begin early enough, but I was away from home for nearly a month before the bushes began to bloom. Where do the bugs come from? Do they come from other gardens, or are they produced upon the plants? Is there anything that I can do now to prevent their appearing next year, or what can I do next season? Also please tell me how and when to prune roses of the above sorts.

In re-potting a palm, *Latonia Borbonica*, recently I found the pot full of roots and a thick mass of them in the bottom of the pot. I broke off this thick mass of roots. Did I do wrong and will it injure the plant? Please answer these questions in your next Magazine.
Cleveland, O. M. L. B.

We gave in the July number all the information we had in regard to the sweet pea disease. We do not think it is caused by a worm, as suggested by our correspondent. So careful a cultivator and observer as the Rev. Mr. Hutchins would have discovered the worm if that were the cause of the mischief, as he evidently has observed the disease for some time.

The description given of the rose insect and the damage it inflicts does not correspond with any of the well known insects that infest the rose. It cannot be the so-called rose-bug, which is quite different in appearance, and also eats the leaves as well as the petals of rose bushes. However, let it be what it may, we think there will be no cause for complaint on this score if whaleoil soap is used on the plants. Every rose-grower should at the commencement of the season be supplied with whaleoil soap and a good garden syringe. We advise a syringe in preference to a sprinkler or sprinkling can. A syringe by means of which a stream of liquid can be forcibly applied, is a very effective implement for the destruction of insects. When the rose bushes are well leaved out in spring and in vigorous growth, even before insects may be noticed, it is well to go over them and syringe them with a solution of whaleoil soap. A pound of soap is enough for eight gallons of water. Young insects unnoticed will thus be destroyed; and as soon as any appear repeat the operation. If our correspondent will adopt this practice there will be little annoyance with insects of any kind on the rose.

As to pruning the roses, keep them cut down well toward the ground. Do it in the spring just before the buds start. The blooming shoots of the rose start from the growth of the last season, and the object of pruning is to ensure a fair amount of new wood each year, produced low down. Plants left unpruned get higher every year, and thus become unsightly, and are more subject to injury by the cold of winter, but plants kept low down may be easily protected, and the flowers are where they are most effective.

The palm is a plant of slow growth, and it was a mistake to remove the mass of roots. It will take a long time, we fear, for the plant to overcome the injury.

THE RATHBUN BLACKBERRY.

IN the February number of this Magazine of the present year, an account was given of the Rathbun blackberry, a variety which, for quality especially, excels any and all other varieties. In size and appearance it is also the equal of the best, if not superior. The question of its hardiness is an interesting one and the past winter gave it a severe trial. The writer visited the home of Mr. Rathbun, a few miles east of Silver Creek, early in May, and examined his plantation of the new variety, as well as some of the Minnewaski and Erie. The temperature in winter had been down to 20° below zero and remained near that point for several days, an extreme cold which is seldom experienced in this State, and it was expected that all blackberry plants would be greatly injured, if not destroyed. These anticipations for the most part were realized. The Minnewaski and the Erie were badly frozen, so that it was impossible for them to produce a crop of fruit. At the best they could only make new canes for another year. On the other hand a considerable amount of live wood remained on the Rathbun, and Mr. R. thought on looking the whole plantation over that he would have at least two-thirds of a full crop. But the worst was yet to come, and that was the May freeze which destroyed the prospects of so many vineyards in Chautauqua county, and westward along the shore of Lake Erie.

In a letter dated June 16th Mr. R. in describing the effects of the cold weather, wrote as follows:

On the morning of May 13th I found my grapes all killed, except here and there a shoot that escaped the hard freeze, the temperature having reached 28°. In the vicinity of Silver Creek they have been more favored, some vineyards having escaped with very little injury. I do not know how their berries fared, but have heard from some neighborhoods around that the berries were all killed. My other varieties, Minnewaski and Erie, are nearly all killed.

But now we come to our own favorite variety and I can tell you a different story. You are aware of the condition in which they came through the hardest winter we ever knew here, and now I will tell you that all of the old wood which lived through, started vigorously a new growth that set full of fruit buds, and they, too were killed by the freeze, or at least seventy-five per cent. of them. But true to its individual character, and unlike any other blackberry, it has sent up strong, vigorous shoots from the lower joints of the cane that have now reached a height of two to three feet and full of fruit buds, and several of these from each root bearing berries of the largest size will amount to quite a crop, which you see I now expect to have. Perhaps not a full crop, but likely to be of the largest size and fine quality. So, now, in spite of all the unfavorable conditions and adverse circumstances I expect a moderate crop of superior fruit.

This is certainly a very good showing for the Rathbun blackberry with the severe trial which it has undergone. Our readers will be informed in regard to the later results of the crop.

The special points of interest in the Rathbun blackberry, aside from its high quality—which consideration is paramount—are: First, its habit of rooting at the tips of the new shoots, like a blackcap raspberry. Second, it suckers but little and has but few and small thorns. Third, excellent bearing quality. Fourth, large

size and handsome appearance of the fruit, making it very attractive in the market and commanding a higher price than other varieties of blackberries.

MUSHROOM GROWING.

An account is given by the *Florists' Exchange* of successful and profitable mushroom growing by Mr. John Scott, a florist of Brooklyn, N. Y.

Mr. Scott grows his mushrooms on the benches, under the benches, and in a cellar, having in all about 2,600 square feet set apart for the purpose. One bed of a width of eight feet is under the center bench of an ordinary three-quarter span greenhouse, eighty-seven feet long and twenty feet wide. Here the bed is formed on the ground; boarding extends from the edge of the bench on each side right down to the floor. No heating pipes are nearer this bed than those which run under the side benches of the greenhouse. The bottom of this center bench, which is made of boards, is covered by a coating of cement,—this prevents the possibility of drip on the mushroom bed. Plants are raised on this bench which the temperature of the house will suit, it being kept from 55° to 60°, which Mr. Scott considers most suitable for growing mushrooms.

In an even span greenhouse, sixty feet long, is a bed under a side bench four feet wide, and under a side bench of another even-span house, ninety-two feet long, is another bed, the heating pipes in both cases being boarded off. The hot water system of heating is used.

Another place which Mr. Scott has utilized for mushroom culture is a corridor which extends the entire width of the houses, some 114 feet. Benches were erected in this corridor, which has a gradual incline toward the entrance. At the lower half mushrooms were grown on the benches to a distance of fifty-five feet, the beds extending over one of the two four-inch pipes which supply heat for this part of the establishment, the bench being about two feet above the pipes. These beds were prepared in the ordinary manner and after spawning were covered by sash which was shaded with a coating of whitening. Mr. Scott says it is immaterial how near the glass the beds are. In the winter the mushrooms will stand all the light available, but towards spring it is too strong for them. The sash keep the beds close and prevents draughts and drying out. They are placed on a gentle slant so as to carry off any condensed moisture which may gather on them. In this corridor the temperature last winter was sometimes

down as low as forty-five degrees, yet a good crop of mushrooms was picked from the bed. In the remaining sixty feet of the corridor beds were placed under the bench, flowering plants being grown on the bench itself.

Mr. Scott obtains his supply of horse manure from near-by livery stables on very favorable terms. As it is brought to the establishment it is piled in a shed and then mixed with about one-fourth loam and turned every second day. This gentleman believes in packing his beds, and the manure with this quantity of loam it renders it more available for that purpose, besides obviating its tendency to overheat, the loam also absorbing the ammonia in the manure. When the compost is of the consistency that it will expand after being squeezed in the hand it is ready for use. The beds are made up to a depth of seven inches, and spawned when the temperature falls to 80°. After spawning the beds are covered with about two inches of loam. Mr. Scott begins the formation of his beds about the first week in October, and keeps on preparing them in succession as often as he can get the manure, right along until March. Thus he has mushrooms from Thanksgiving to the first week in June.

The spawn used is the English Milltrack; it is broken into pieces of about two inches square and placed in the beds eight or nine inches apart, to a depth of two or three inches. The beds are never watered until the mushrooms appear if it can possibly be avoided. Sometimes portions of them will dry out, and these are gone over with a watering can having a fine rose. During winter water at a temperature of 80° to 90° is used, and in May and June water is applied with a hose.

Mr. Scott says he has picked mushrooms twenty-two days after spawning; but the usual time when a crop can be gathered is from six to seven weeks. The mushrooms are pulled from the beds, never cut; care being taken to remove the roots also, as if these are allowed to remain in the bed they will decay and kill off many of the mushrooms which are left, and every thread of mycelium which comes in contact with them. The holes left by the removal of the roots are filled up with soil.

Mr. Scott has never calculated the yield to a square foot. Sometimes he has gathered individual specimens which weighed three-quarters of a pound. However, he finds mushroom growing sufficiently remunerative to warrant him continuing it. Two of the most vital points for success are selection of good spawn and the proper preparation of the manure. These assured, the remaining work is easy.

DOCTOR'S PRAISE

"AYER'S SARSAPARILLA is without an equal as a blood-purifier and cannot have praise enough. No other blood medicine I have ever used, and I have tried them all, is so thorough in its action and effects so many permanent cures as Ayer's Sarsaparilla."—Dr. H. F. MERRILL, 94 Western Ave., Augusta, Me.



Ayer's The Only Sarsaparilla

Admitted at the World's Fair.

AYER'S PILLS for Indigestion.



ROCHESTER, N. Y., AUGUST, 1895.

Entered in the Post Office at Rochester as "second-class" matter.

Vick's Monthly Magazine is published at the following rates, either for old or new subscribers.

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One copy twenty-seven months (two and one-fourth years), full payment in advance, One Dollar.

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All contributions and subscriptions should be sent to Vick Publishing Co., at Rochester, N. Y.

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\$1.25 per agate line per month; \$1.18 for 3 months, or 200 lines; \$1.12 for six months, or 400 lines; \$1.06 for 9 months, or 600 lines; \$1.00 for 1 year, or 1000 lines. One line extra charged for less than five.

All communications in regard to advertising to Vick Publishing Co., New York office, 38 Times Building, H. P. Hubbard, Manager.

200,000

The Bride of Niagara.

This is the name having the greatest number of votes for the Double Sweet Pea which James Vick's Sons have under cultivation. It is intended to distribute it next season. With the last issue of their Floral Guide a circular was sent out describing this new variety, and giving to their customers the privilege of voting for a



BRIDE OF NIAGARA.

The persons voting numbers nearest to what this name received are the following:

First—CONRAD H. BLANZ, Cincinnati, Ohio, which entitles him to the prize of \$150, being within eight of the exact number.

Second—G. W. CARTER, Geneva, Ohio, being within fourteen of the number and entitling him to the prize of \$75.

MRS. E. A. CORBIN, Royalton, Vt.

SARA VALLETTE, Toledo, Ohio.

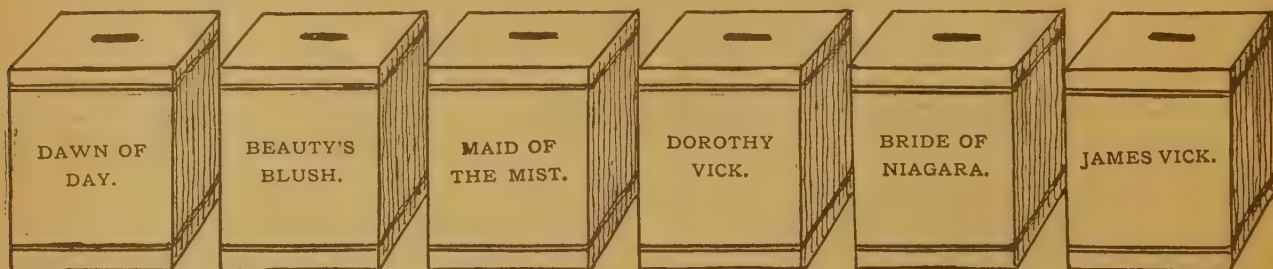
The last two are each within fifty-two of the whole number—one fifty-two above and the other fifty-two below it; they are consequently tied, entitling them to an equal division of the amount of the third and fourth prizes which are \$50 and \$25. Thus each is awarded \$37.50.

The name Bride of Niagara is a very appro-

all seedlings producing more or less double flowers, that a certain proportion are double while the rest are single. The flowers are very beautiful, and it is perhaps quite as interesting that there should be both single and double flowers on the same stem.

The Book of the Fair.

Part 20 of this serial has been received, and is in its usual beautiful form. It concludes the account and illustrations of Japanese art in relation to their drawings, paintings, sculpture, carvings, tapestry embroidery and porcelains, giving a clear and concise view of the whole subject. It then takes up the subject of the State and foreign exhibits in their individual characters, and commences the series of engravings of the State buildings, with interiors displayed, and reproduces fine paintings and statues. This great history of the World's Fair



name for it, and offering four prizes to the persons sending the four votes containing numbers nearest to the whole number which should be cast for the name having the greatest number of votes.

Six ballot boxes were made and lettered, each with one of six names that were offered as appropriate. In these boxes were deposited each day the votes as received, and the openings were covered and locked, except once each day when a lady having the matter in charge opened them and deposited the votes. The polls were closed June 30th. The name receiving the highest number of votes was the Bride of Niagara, and the others followed in the order as given below:

- 1—BRIDE OF NIAGARA.
- 2—DOROTHY VICK.
- 3—DAWN OF DAY.
- 4—JAMES VICK.
- 5—MAID OF THE MIST.
- 6—BEAUTY'S BLUSH.

Beauty's Blush received the smallest number of votes.

Thus by fact of the highest number the name must be Bride of Niagara.

priate one, commemorating the locality where the variety originated, and which was the wish of Mrs. O. H. Day, of Niagara Falls, who for several years nursed it in its early infancy.

Now that the sweet pea with double flowers has received its name it may be well to give another brief description of it. The lower parts of the flower are white, while the upper part, or parts, the banners, are a clear rose color. We wish it to be clearly understood, as most of our readers do understand it probably, that as in all cases with seedling plants, all the flowers are not double—a part are single and a good proportion are double. The same plant produces both double and single flowers. One flower may be double and the next one to it single; sometimes two or three double flowers are clustered on the same stem, and sometimes there may be two single ones and only one that is double. Even some plants may not produce double flowers, and again, at some periods of their blooming they have more double flowers than at others. The plant follows the rule of

of 1893, and the only complete history of any World's Fair, is now drawing towards completion; it has been prepared at an immense expense, and is a monument to the enterprise of its author, Herbert Howe Bancroft. Published by the Bancroft Company, Auditorium Building, Chicago, Illinois.

Vacation

Benefits are more
Than equalled by the
Pure Blood, Life and
Energy given by

Hood's Sarsaparilla.

Hood's Pills cure all liver ills, biliousness, headaches, 25c.

SPINACH—ITS CULTURE AND HOW TO KEEP IT.

SPINACH likes a rich sandy loam and is a rank feeder. Good crops can be grown on medium sandy land by using such fertilizers as blood and bone, fish or Peruvian guano.

Prepare the land by plowing and harrowing and back harrowing, which breaks the lumps and leaves the land level. Lay the land off in six-yard beds. Open a double furrow through the center of each bed. Spread stable manure evenly over, or sow any of the above named fertilizers. Plow under at a medium depth. Seventy-five to one hundred cartloads of stable

est seed through, and what passes through not be sown,—the loss would not be over five per cent., and by so doing it would give a better stand and be much stronger.

When the plants show their second leaf they should be hoed with a flat or push hoe. A flat hoe is preferable on account of cutting closer to the plant. It will take a little longer, but will pay, as there will be less weeding to do. Chick weed, Dutch cuss, or any other weed should be taken out in the fall, as it goes to seed quickly and may give considerable trouble another year.

In the spring, when the frost is out and the ground has dried so that it can be worked, a top dressing of Peruvian guano applied and hoed in will start it growing and give it a dark green color. Any person who never tried it would be astonished at the result.

Frame spinach, as it is called, is raised in cold frames or cold houses by the market gardeners in the vicinity of New York city. It commands a ready sale, is tender and does not taste groundy or gritty. Some of the largest growers have as high as 3,000 sashes sown for cutting in the winter. A sash is three feet wide by six feet long.



SPINACH—LARGE PRICKLY.

manure to the acre. Of the above mentioned fertilizers, fish guano is preferable; blood and bone next. Fifteen hundred to a ton is considered a good coat for an acre.

Start to plow by closing the open furrow in the middle of the bed. Follow on around until the bed is of the width laid out. Harrow, back harrow. If the bed is uneven or lumpy, rake with a hand rake. The bed should be a little higher in the middle than on the sides, so that the surplus water will run toward and in the open furrow between the beds.

After raking, the bed is ready for marking and sowing. Stretch a garden line along the



SPINACH—NEW ZEALAND.

The seed is sown by hand in drills six inches apart, thinned to an even stand, fertilized with Peruvian guano, hoed and weeded. When the ground begins to freeze the sashes are put on but not tightly closed until hard weather comes on, when they are closed nights and aired by day. Round Leaf is most in favor and is sown a week later than that outside.

HOW TO KEEP IT.

Spinach often sells for a good price in the winter in New York city, and the market gardeners have different ways of keeping it. One of the best

is to cut it on a dry day just before hard weather sets in. Place in barrels which are laid on sides, in double rows, the two open ends close together, piled several tiers high. Any dry place on the field will do. Forked uprights are set in the ground, a ridge pole placed in the forks. Boards are nailed to the ridge pole slanting toward the south, the east side is closed to keep the sun from shining on the barrels. The object is to freeze the spinach and keep it so until wanted for use. When wanted it is taken in the market house and left over night

by a good fire. If the frost is out it is picked over, all dead and yellow leaves removed, washed, packed in barrels, and shipped to market.

Another way to keep it for cutting in early spring is to sow it in the usual way in beds, the furrows open at the ends so that the surplus water will run away quickly, cover lightly and evenly with salt or bent grass straw, as any soft grass will not do as it lies too close, holds too much moisture and does not dry as quickly as the above mentioned grasses. As soon as the snow has melted and the ground begins to thaw it can be cut and marketed.

In the South large growers sow in twenty-inch drills which permits working with mules trained for that purpose. They use fertilizers altogether, using often to keep it green. It is cut, packed in barrels dry and shipped to market. Savoy Leaved is mostly used and it is liked by grocery men on account of holding its measure.—*John F. Fallagar, in The Market Garden.*

SWEET PEAS.

Having just received your July Magazine I must say there are some very good points of instruction given to people who raise flowers. Please allow me space in your August number to say a few words about sweet peas, as people are writing asking what is the trouble with their peas,—some die out at the top, and some at the roots. Some people water their sweet peas when the hot sun is on them and the heat wilts them and they die off; some give them too much water. I do not believe in soap suds for peas, as the roots are so tender that the lye of the suds kills them. I had a piece of land where wood ashes had been buried; I sowed sweet peas on the ground and they came along nicely till about ready to form flowers and then they all died,—so that is the result of wood ashes.

I purchased two pounds of sweet pea seed from you this season. I sowed the seed in rows four feet apart. I made trenches six to eight inches wide and five inches deep, and put in three inches of manure, leaving it two inches below the level, and then sowed my peas. I covered them with about half an inch of earth. As they grew I kept drawing the soil up to them until the peas were four inches high, then I put some wire netting, four feet high, in the middle of each row of peas for them to cling to. I spray them four times a week and give them a thorough watering twice a week when there is no rain. I have the finest lot of sweet peas the readers of this paper ever wish to see. The flowers are picked every other morning, and when we go to pick them the foliage cannot be seen for the flowers. They are the handsomest varieties of colors ever seen, and draw the attention of people passing. If these methods are followed the same results will ensue. I have raised sweet peas for the last eight years, but never had the variety of colors that I got from this lot of Vick's seed. The varieties are all mixed together, and I think I like them better so than in separate colors. If anyone wishes to know anything further about the above I will be glad to explain.

J. W. GARRAWAY.
Cleveland, Ohio.



SPINACH—LONG STANDING.

side of the bed lengthwise. A marker with teeth ten or twelve inches apart, or any distance that may be selected, is drawn by hand down the line, making a light mark to run the seeder in. Before starting to sow put a little seed in the seeder and run it over a hard, clear spot of ground or on a board. You will see how the seeder is dropping the seed. It should be covered one-half inch deep and the ground should not be packed too hard over the seed.

For fall sowing, would advise running the seed through a fine sieve that will let the small-

THE NEW ONION CULTURE.

AS we are not all horticulturists we may not all understand just what is meant by "The New Onion Culture."

This method of culture consists simply in sowing the seed in greenhouse or hotbeds and then transplanting to the open ground, as cabbage or other plants.

The new method, although said by some to have been in vogue for several years, has only been brought into prominence the past few seasons. Mr. Green, of our experiment station, and Mr. Greiner, of New York, are both given the credit of bringing the new method to public notice.

I have had some little experience in growing onions from sets and from seed sown in the open field, but the "new way" is the only way now, for us, whether growing for the market or for family use only.

By planting the right varieties we can grow a larger yield, of better quality, and with less labor than by any other method, and when plants may be had, reasonably, I could give no reason for buying sets.

The plants can be bought cheaper than grown, unless you intend planting to some extent.

VARIETIES.

There are several varieties, of foreign origin, that take well to this method of culture, but the Spanish King or Prize Taker is by far the best and most attractive of any of the varieties we have tested. This variety resembles the large Bermudas, seen at all our groceries.

While we cannot grow them quite so large, they compare very favorably, with all things considered.

The common varieties are not to be compared with the above for quality or productiveness.

The past season we had Danvers, Wethersfield, White and Yellow Globe planted beside the Prize Taker, that were treated alike throughout the season, and yet the latter produced two bushels to one of the others on a like area.

The smaller varieties, however, made up in strength for what they lacked in size, for those were so strong they could hardly be eaten at all without cooking.

There is a demand in our market for white onions, at an advanced price; so I planted the so-called Large White Globe, but last season it proved to be too small, and as the White Victoria is recommended very highly, am trying that variety this season.

The seed of this variety of the first sowing proved worthless, was from a lot of old seed I concluded, and had to order the second time, making my plants a little later than I like. Hence, the necessity of testing seed beforehand.

We set last season some 17,000 plants, and gathered seventy bushels. This, of course, was a light yield, but when we remember the exceeding drought I only wonder that they did as well; and had we planted all Prize Taker the yield would have been several bushels more.

SOIL AND MANURE.

While I believe any rich soil will produce a good crop of onions, the soil on which we have grown our best crops is near an open ditch, a

black, sticky muck. This breaks up very rough and is plowed in the fall. After the action of the winter frosts but little labor is required to place it in first-class condition.

We do not stop harrowing or dragging until the soil is as fine and level as it is possible to get it with the team, then finish up with the garden rake. The soil should be perfectly level to prevent washing out or covering plants by heavy rains and to facilitate the use of the wheel hoe.

To fertilize the plot, unless the manure is well rotted, it should be plowed under, but fine manures are scattered on the surface and harrowed in. Poultry manure is excellent for the onion, and best composted with soil or sifted coal ashes. One hardly need fear using too much either.

Wood ashes are recommended very highly, but have not proven of any great value on our soil.

The past season one side of our patch had a liberal application of high grade phosphate, sown broadcast before harrowing, which increased the yield quite perceptibly. We aim to locate our patch at a different place each season. By doing this we hope to avoid the bad effects of blight and insects, to some extent. Have had no serious trouble as yet, but part of our patch last year that had been cropped with onions the year before, was affected somewhat with blight. I never could accept the theory "that the ground becomes better for onions, each succeeding year a crop is grown upon it."

SOWING AND PLANTING.

The seed should be sown from the middle of February to the middle of March. I should not like to sow later than the latter date, as the plants should be set early, before the hot and dry weather comes on.

Ours are set about April 15th to 25th and have not lost any from frost.

The plants are taken up by loosening the soil under them first with a trowel or stick.

By trimming off part of the tops and roots we are enabled to set plants more rapidly and better. We do not trim severely but with a bunch of plants in one hand, and with a single stroke of the knife we take off just enough of the top that the plant will stand erect when set, and at another stroke enough sprangly roots are taken off so that we can do much better work. To set the plants a round stick about one inch in diameter, sharpened to a point, answers the purpose very well, but where many plants are to be set I prefer the modern steel dibble. With this we make two or three strokes to each plant. First, a straight hole into which the plant is placed and held with the left hand. A second time the dibble is inserted, about one inch from the plant, point toward the plant at an angle, and then pushed toward the plant, thus compacting the soil about the roots; then another light stroke to fill up the hole. When properly set plants cannot be pulled out by the tops. This may seem a simple matter, but I have often been amused in watching others set plants, but shall not undertake to tell how they go about it. I have also seen plants set with much less trouble than my way, by just dropping the plants in a mark and simply pressing the roots in the soil

with the fingers or a stick. But I feel sure I could not sleep well on retiring had I set a lot of plants in this way; fearing they would not do well, for in planting sets, truly "the best way is the only way."

We always aim to set the plants when the soil is moist, and to prevent tramping and packing the soil, instead of using a line or marker we have a lot of ten-inch barn boards that are laid down in straight lines end to end and a row of plants are set at each side of these boards, making the rows just about the right distance, twelve to fourteen inches apart. The plants are set three to four inches in the row.

By this method we prevent tramping the ground any whatever, and are able to utilize considerable time when the soil is wet and we would not dare go upon it in any other way.

CULTIVATING.

By this new method of cultivating we avoid the most tedious part of the cultivation, that of the first two weedings; and most of the cultivating is done with the wheel hoe. We aim to cultivate with this every week or ten days.

One thorough weeding, by hand, ought to suffice. One of the best tools for this work is an old table knife. One cannot do this work perfectly without getting down to it and stirring the soil between each plant.

What hoeing is necessary after this, is usually done with a narrow bladed hoe.

HARVESTING.

There is only one drawback to these newer varieties. They are not as good keepers as some of the more common varieties. Two reasons might be given for this: One, that they are more palatable and more likely to be used first, and the other, that they are softer. I believe, however, that with a little extra precaution they might be kept till spring very nicely. As the bulbs grow large and are nearly all on top the ground, they are exposed to the elements and will be injured by the heat of the sun unless gathered as soon as fully ripe. The only trouble we have experienced is to keep them from growing, but this can be prevented if spread out and kept perfectly dry. They should be kept cool and as near the freezing point as possible during the winter. We have always put our crop off in the fall, as we are not prepared to winter many, and taking into consideration the distance from market and the bad roads in winter we think it best for us.—*E. S. Tussing, in Proceedings of Columbus Horticultural Society.*

HELIOTROPE—MIGNONETTE.

Will you through your Magazine give instructions concerning treatment of heliotrope and mignonette? The heliotrope leaves grow black and shrivel up, while there are but few blossoms. We have found it difficult to secure blooms of mignonette and cannot discover the reason. G. M. O.
St. Paul, Minn.

Mignonette is as easily raised as buckwheat. Sow it in the full sunshine, not in the shade or under the drip of trees. We judge our enquirer has the heliotrope in a pot, and perhaps in a room where gas is used,—or the pot may lack drainage. The plant does well in the open ground in summer. It is difficult to suggest what to do when the real conditions are not known, as in this case.

If Baby is Cutting Teeth,

Be sure and use that old and well-tried remedy, *MRS. WINSLOW'S SOOTHING SYRUP* for children teething. It soothes the child, softens the gums, allays all pain, cures wind colic and is the best remedy for diarrhoea.

WINTERING ROSES.

IN treating upon this subject in a late issue of *American Gardening*, Wallace G. Gomer-sall gives some very good practical directions:

About November 20th, or before the ground is frozen, the rose growths are shortened, leaving about eighteen inches of the current season's growth. Soil is then thrown up around each plant, the mound being made sufficiently high to cover at least six to eight inches of the current season's wood. Our roses being planted from three and a half to four feet apart there is no difficulty in obtaining sufficient soil for this purpose.

The close pruning, too, which is practiced here, facilitates this method of winter protection. After the roses are earthed up, the rose beds are given a good mulching of half-rotted cow manure; this serves the double purpose of protecting the roots, which after the removal of so much soil will be near the surface, and also by being dissolved by the thawed snow supplies the necessary food in an available form for the plants to take up when they commence to grow in the early spring.

This method of wintering roses should recommend itself to all gardeners in private gardens, there being no straw or leaves to litter the lawn. It is easily and quickly done, and there is nothing to displease the eye or make the garden unsightly.

The same cannot be said for the heaps of leaves and brush one can so often see used for covering rose beds.

In wintering the hybrid perpetual roses it is quite unnecessary to go to the trouble of pegging down the shoots and then covering with a foot of leaves. The earthing up method will be found equally satisfactory and far more pleasant to do, for it requires a great deal of time and patience and is anything but pleasant labor to get leaves out of the rose bushes in the spring. Tea roses should be laid down and covered with soil in the same way that we treat raspberries. Mulch with half-rotted cow manure, and when the ground is frozen cover the beds with salt hay or fern, if obtainable, or leaves, covering the whole with spruce boughs or wire netting.

This method of rose protection is a good one and the only criticism we would make is in reference to shortening the stems or shoots. There is no advantage in doing this and there is greater danger of freezing back after the top is removed. Again in some cases the stems are sufficiently flexible to bend down so that the tips will touch the ground, and these can be fastened there, thus admitting of covering nearly the whole length.

But the injury done to roses and shrubs and trees depends not entirely upon the low temperature which may be experienced, but upon two or three factors at least; one of these is the condition of the new growth. If it is hard and thoroughly ripened it will stand greater severity than when it is sappy, due to mild weather and late growth before the ground finally freezes. The other element to be taken into account is the moisture in the ground. In a season of great drouth, if it closes and freezes up without abundant rains, all kinds of hardy vegetation is more susceptible to injury by cold than if the ground is filled with water. Evergreens especially at such seasons suffer greatly. Numerous cases of beeches and birches dying have occurred here the present spring and summer, which can be accounted for in no way but a lack of water for their roots during the past severe winter. This is not theory but fact, sustained by ample observation. And all this has something to do

with the protection of roses by the careful operator. If he is in a drouthy and cold region and there is a lack of water in the soil by the first of January then let him use extra means of protecting his roses at that time. A little extra covering may save plants which would otherwise be injured.

STRAWBERRIES FOR HOME OR MARKET.

There is practically no difference in growing strawberries for market or for home use except in the amount planted and possibly in the quality of the varieties. Generally the most productive varieties are satisfactory for home use. Sod plowed under should not be planted to strawberries as grubs generally destroy the plants. Land cultivated the previous season in any hoed crop will be in the best condition for strawberries. Coarse manure should be plowed under. Fine manure, unleached wood ashes or bone meal should be applied as a top dressing and cultivated in, either before the plants are set or after.

Plant in rows four feet apart and eighteen inches in the row. Set the new plants not less than ten inches apart until the row is as wide as you want it and remove the rest. Every third or fourth row should be staminate. Eleven years of experience and trial have taught me that Crescent, Haverland, Bubach No. 5, Warfield No. 2 and Greenville, fertilized with Lovett, Beder Wood, Enhance or Cyclone, succeeding over a wide range, are best adapted for general cultivation and home use.

Few persons once interested in strawberry culture are satisfied without testing some of the novelties. The productiveness of new varieties every grower must test for himself. Set a dozen plants of a variety and grow them until you are satisfied they are productive enough to be planted with your standard varieties. It may worry your patience to wait a year or two to find out the value of a variety, but it will tire your patience a good deal more to plant a thousand or two at a fancy price and get no returns.—E. L. Roser, in *The Strawberry Cultivist*.

EAST INDIA AT COTTON STATES EXPOSITION.

One of the foreign features at the Cotton States and International Exposition will be the East India pavilion. This pavilion will contain selling booths for Indian merchandise and wares of all sorts. It will be typically oriental. On the wide verandas prepared Indian tea will be sold by native Hindoos, clad in their oriental garb.

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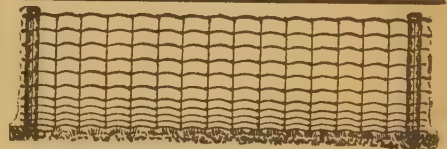
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ANEMONES AND RANUNCULUS.

HOW many of our readers know anything about these bright little tuberous-rooted flowers? Not many, I am sure.



ANEMONE ROOT.

The anemone is a queer little specimen as to looks, for the tubers are dark, flat-tish and ill-shapen, no two alike, and coming across them one might well imagine them like nothing so much as old dried ginger roots

with a determined reticence as to top or bottom. But these dark looking, ill-favored specimens hold a wonderful beauty within their dried ugliness.

Those of the ranunculus are equally odd; a number of little prongs unite at a common crown, resembling in miniature the very tiniest cluster of dahlia tubers. The treatment of both is essentially the same, with perhaps a slight difference in soil. A wet, stiff soil is not good for the anemone and will eventually rot the roots; a light good soil is much to be preferred. The ranunculus will stand a stiffer soil and more water, but will thrive well with the others.

Neither of these plants can be considered hardy, and to give entire satisfaction special care must be given as to requisite protection, if planted out in the fall. If the natural soil is not rich loam remove to the depth of at least eighteen inches and fill in with rich, light soil at least fourteen inches. Rotted sod from some old pasture is just the thing, and filling in with this the top dressing may be fine, light, rich soil. Of course good drainage is essential and it will not do to have the bed low or wet from water standing. For this reason the bed should be raised a few inches above the surrounding level.



RANUNCULUS.



ROOT.

In this bed place the tubers, four to six inches apart according to size, and some two inches deep, pressing the soil around them. Plant in October or early November. When the ground begins to freeze cover the bed with a thick coating of leaves or straw manure, so as to thoroughly keep out the frost. If a rough frame is made and filled in with leaves and covered with boards or glass it is still better, if it can be made secure against field mice which sometimes harbor in such places. Early in spring the frame can be removed and the bed uncovered, when the plants will soon appear. The earth should be pushed loosely around them and water given if there should be a season of drouth. They bloom quite early and are of many rich colors. A little protection from the too hot sun will keep their beauty much longer.

A bed of these rich blooming plants is very beautiful and dazzling to the eye. The species and varieties are single and double, and the colors from white to the richest scarlet, yellow blue, black, spotted,—hardly a shade which cannot be found.

When the flowers are faded and the foliage (which is very pretty) turns yellow, take up the tubers and keep in a cool place until the return of the planting season. The roots may be kept over and planted in the spring, as they possess



ANEMONE.

great vitality, but autumn planting is preferable. Another way is to sprout early in the spring in the house—in damp straw or wood's moss—and then put out very early in the bed which was made ready in the fall. We have grown them successfully in this way.

The culture of these flowers is not difficult and they will repay care taken in their behalf; the wonder is that we so seldom see the anemone and ranunculus.

THE PERENNIAL CALLIOPSIS, OR COREOPSIS.

CALLIOPSIS freely translated means "It looks beautiful"; Coreopsis, "It looks like a bug." Here is a state of things until we find the one author was thinking of the bright flowers of some species of the genus, while the other looked at the ripe seeds, or rather the fruit which contains the seeds,—the farmer's name for certain weed species being "tickseed."

Someone wrote not long ago that the phlox tribe had an added lustre to him, because all the species were native Americans, and this rampageous patriot may be glad to know the present genus is also our own, the perennial, *C. lanceolata*, ranging from Michigan to Virginia, while the annuals, mostly native to the west, are found from Minnesota to Texas. Gray gives eighteen species and calls them all coreopsis. Two years ago I sowed the seed of *C. lanceolata*, and got plants quite easily, two of which, large and well grown, lived till winter, but in spring both were dead—rotted off at the crown.

Last year I sowed again, mixing a little sand with the soil in which the plants were set; one of my two plants lived through and now (June 19th) is in bloom. Without other experience than this I incline to think this plant must have a dry place in winter, so if your soil is soggy you must amend it with sand or drainage, or both. It is a fine flower, well worth a little pains. The shoots start out nearly horizontally at first, then curving upward they branch freely and scores and hundreds of flowers and buds are in sight at once, promising a long succession of bloom. The flowers seem to lack the crimson-brown markings of the annual sorts, rays and discs alike in tint are the brightest, clearest yellow. The culture has been to keep a little spot free from grass and weeds, no watering though the drouth last year and this was and is severe, no winter protection except a six-foot-snow drift.

E. S. GILBERT.

THE PEARL GOOSEBERRY.

THIS variety of gooseberry, of American origin, is probably the most remarkable for productiveness that the horticultural world has ever witnessed. Words seem too feeble to convey a proper idea of the fecundity of this plant. The fruit so completely covers the branches that it is difficult to understand how the leaves are capable of performing their functions. That they do so, however, is attested by the healthfulness of the plants and by the fact that each season the crop of berries is brought to perfection. The berries are placed on the branches so closely together as to make a solid mass of fruit, without space for the insertion of another one. This language is no exaggeration, and it requires a vivid imagination in connection with it to get a true conception of the appearance of the plant without seeing it. A plantation of 2,000 plants averaged this season over eleven quarts to the plant, and the weather exceptionally dry.

The Pearl gooseberry was originated by Professor Saunders, of the Ottawa Experiment Station, by crossing the Houghton with the Ashland Seedling. Thus it is of true native descent. The fruit when ripe is of a green color, the berries from a half inch to three-quarters of an inch in diameter, and its quality ranks high.

The Michigan Agricultural Experiment Station, we understand, marks this variety ten points for productiveness, and nine points for quality, each on a score of ten.

The plant is very healthy and vigorous, as it is scarcely necessary to remark, for only under such conditions could it bear the crops which it does annually. It has been bearing for the past nine years, and has uniformly perfected its crop without having a portion of it removed.

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PRACTICAL NOTES.

Asclepias tuberosa.—No flower that I ever saw has such an intense tint of orange as the blossoms of this fine hardy native perennial; all other yellow flowers seem pale beside them. The flower is a true milkweed flower, with its reflexed corolla and corona, though much smaller than the flower of the ordinary milkweed or silkweed; but the plant would not often be recognized as belonging to the milkweed genus by any one who did not see the flower or seed. The stems are not commonly more than two feet long, and few or none of them stand erect; they recline at various angles, some nearly horizontal; so the plant spreads widely, a few near each other covering the ground. The narrow leaves are set thickly on the stems, the flowers are perfectly erect, no matter how the stem lies, they are small but their numbers make up for that, and they remain perfect a long time. The seeds sent by a lady of Rhode Island grew in New Jersey she said, and I was told to plant in "a dry shade." But I have no really dry ground, and they are in the full sun, from which I conclude it will grow anywhere almost. I sowed seeds in a window box and in the open ground and got plants by both methods. The seeds are quite large and the young plants are strong and robust from the start. With fresh seed no one need fail. But I have the impression that the seeds of perennials ordered from the seedsman are more likely to fail than those of annuals, for which there is a large demand. Asters, pansies, etc., are sure to be good, but if, as I suspect, a large stock of *Asclepias tuberosa* is carried from year to year and only a few packets sold each season, it may become unreliable in time. The remedy is to order a plant instead of seed; it is better to pay a few cents more than to prepare, sow and watch in vain. It is well to sow such seeds in large boxes which may remain undisturbed; in this way I got the *Asperula odorata* this year, which wanted to lie a year before growing. My *asclepias* bloomed a little at fifteen months of age last year; it is blooming more this season, beginning the last days of June. The culture has been a semi-occasional hoeing and a little fine manure put on in late autumn.

Gardening at Railway Stations.—Some years ago there was an outbreak of ornamental gardening along the Erie Railway. At our station a plat was enclosed with a gaspipe fence and a mound of compost piled up in the center, with margins of grass. The mound was covered in the season with bedding plants, coleus and the like, which from a little distance had a curious resemblance to a low pyramid of red and green cabbage heads laid in alternate stripes. With the first frost it became a manure heap, and so remained till the next planting time. This style soon played out, and now the plat is a lawn sprinkled by the man who runs the pumping engine. This is a vast improvement on the disabled barrels, cinder heaps and piles of old iron once occupying the ground, but a good selection of hardy herbaceous perennials, shrubs, deciduous and evergreen, would be better,—the best of all, in fact. Something for every month in the year could be grouped even on this small

area, evergreens for winter, flowers and foliage for summer.

Anchusa italica.—I do not know any common name. It is a good and easily grown plant; its robust seedlings come up as easily as corn, and will mostly take care of themselves and self-sow freely. It flowers the first year, from the seed, getting its full growth and flowering from June till hard frosts, making a much branched plant three feet high. The flowers are small, not more than half an inch wide, but their number is vast, so the plant is quite showy. The five-petaled flower has a margin of the richest, deepest violet; inside this violet zone is a smaller flower marked out in a rich red-purple and the five short stamens make a white eye. The long, narrow, untoothed leaves are rough to the touch, in fact all parts are hairy except the petals. The *anchusa* is said to be biennial, but its way of self-sowing will keep it going and make it apparently perennial. With an ordinary soil and an occasional hoeing it gives no more trouble than a burdock. Its branches rise from the root and spread until the plant is three feet or more across, so it must have room.

E. S. GILBERT.

TWO NEW RASPBERRIES.

At the summer meeting of the Wisconsin State Horticultural Society, a paper on the subject of "New Varieties of Small Fruits" was read by R. J. Coe, of Fort Atkinson, Wis. Of new raspberries the writer had the following to say:

There are two new raspberries to be introduced this season, a description of which, it seems to me, would be of interest to all growers and lovers of fine fruit. The first of them is the Loudon, a Wisconsin production, which originated with and is named after Mr. F. W. Loudon, of Janesville, who is also the originator of the Jessie and Hoard strawberries. It is said to be a seedling of the Turner, fertilized with Cuthbert. In growth and appearance of cane, and in size, color, shape, firmness and quality of fruit, it very much resembles Cuthbert, and has the added value of keeping longer in good condition after being picked. The secretary of our State society, Mr. A. J. Philips, picked fruit of the Loudon on Thursday, and, after carrying to different parts of the State, finally used it in his own home the following Monday, at which time he says it was in very fair condition. Its special point of superiority over Cuthbert seems to be greater productiveness, better keeping qualities, a longer fruiting season by a week or ten days, and greater hardiness.

The second variety is the Columbian, which originated with Mr. J. T. Thompson, of Oneida, N. Y. It was raised from seed of the Cuthbert, that was grown by the side of the Gregg and is believed by the originator to be a cross between the two, and I think with good reason, as it seems to have some of the characteristics of both. As I saw it on the originator's grounds the past season, it was simply wonderful in growth of cane and productiveness, so much so as to be very hard to believe without seeing it. It resembles Cuthbert in shape, is somewhat darker in color, a little larger in size and very firm, and never crumbles or falls to pieces in picking or handling. In quality it is equal to the Cuthbert, and the originator claims it to be the best berry for canning purposes ever grown. It resembles the Gregg in that it never suckers like the reds but propagates from the tips, which to my mind is a great advantage. The berry will hang to the bush long after it is fully ripe,

and will finally dry up if left without picking. I saw a third of an acre of Columbians that had been allowed to grow without any summer pruning, that stood ten feet high, and I was told that it picked 2,800 quarts of berries, or at the rate of 8,400 quarts per acre. Of course, it remains to be seen whether it will do this in other places. If it will, it is by far the most valuable variety ever produced.

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BEAUTY ALL AROUND US.

There's beauty all 'round us
We heed not,
Aye, see not,
And sometimes we care not
To look, when we might,
For blossoms that sprinkle
The meadows
And hedgerows,
But cling to the shadows,
And turn from the light.

We hug to our bosoms
Our losses
And crosses,
And crush the green mosses
That lie at our feet;
Pluck rue for our wearing,
Complaining,
Restraining
Our hands from obtaining
Full morsels of sweet.

Glad Springtime comes smiling
Discreetly,
But sweetly;
Her mornings pass fleetly,
Glad Summer comes on;
Her garland, now fragrant
With roses,
Discloses
Her wealth of rare posies,—
Then she too is gone.

Rich Autumn soon follows
In gay shoes
And bright hues,
And showers her cool dew
On purple and gold;
Her hands every good thing
Possessing;
Caressing,
She gives us her blessing
To have and to hold.

Then Winter comes blustering,
His strong forces mustering,
His white crystals clustering
On village and plain;
Old Sol scarcely glances,
Then draws back his lances
When this rider prances
With loose-bitted rein.

But Winter uproarious
Is certainly glorious,
For jolly old Boreas
Chants to our rhymes;
And pearls iridescent
Crown both lord and peasant,
And gifts make most pleasant
The glad Christmas chimes.

M. J. MEADER SMITH.

SWEET WILLIAMS.

A practical horticulturist, A. D., writing in the *Journal of Horticulture*, has the following to say about Sweet Williams:

When I was, some years since, growing Sweet Williams largely for seed production, I concluded that for one person who would grow for show fifty would grow for ordinary garden decoration; therefore were less anxious to have large smooth-edged and similar looking flowers than those that were very varied in markings, were very showy, came in large trusses, and were nevertheless very fine pips.

Many of those having serrated edges seemed to my taste to have quite as much, if not more of beauty than the smooth-edged flowers had. Very many, too, produced blooms that were beautifully marbled, a most interesting feature as giving variety, distinctly novel. Some were pure selfs, such as white, carmine, or deep red.

Then there was the charming auricula-eyed sections, mostly saw-edged, having white eyes with a ground of red, crimson, plum, or some dark hue, and the outer margin perhaps of a light shade. These again were very attractive in this popular flower. Far too often now after there have been such fine strains so long in commerce very small flowered inferior forms are found in gardens. Surely those who grow them cannot know of the very much finer strains that can be purchased just as cheaply and grown with the same ease. It is rather late to sow

Sweet William seeds now, yet not too late to get plants strong enough to carry single stems. These should be planted in trebles, and then they give very good effects the first year.

I always preferred to sow seeds early in May getting good strong seedlings to put out about the end of June; and such plants would in fairly good soil grow into quite big clumps, and the following year carry several fine trusses of bloom. Such plants as these are very attractive objects in a garden, especially if from one of our modern strains. Sweet Williams will often stand through hard dry weather better than during a wet winter. Their great trouble in the latter case is in an attack of fungus or black spot. That may be checked by applications of sulphur or of sulphate of copper and lime, but it is not easy to correct.

When plants that have once bloomed make numerous new shoots and are left to winter it is a good plan to strew fine potting soil in and about the shoots. The effect is both to furnish protection for the winter and to promote rooting. Specially fine sorts can in this way be easily propagated, or they will readily root as cuttings. * * Where seeds are not wanted, then so soon as the flowers die off the heads should be cut out, as often the stems will break lower down, and thus give many small trusses from side shoots.

Very easily raised from seed, sowings being made either broadcast or thinly in shallow, broad drills, there is no reason why plants should not be had in abundance every year. Usually classed with biennials, Sweet Williams are not infrequently perennials in a restricted sense. Still, it is much better to raise from seed every year, and when that is the case flowered plants can be cleared away as soon as their season's blooming is over, and strong young ones take their places. There seems to be little fear that any new fashion in garden flowers is likely to displace so old a favorite in popular estimation.

SHIPPING FRESH FRUIT IN CARBONIC ACID.

Some months since we noticed in this journal a method of shipping green fruit by the use of carbonic acid gas diffused in the atmosphere of the conveyance. It is the discovery of a Californian, and at its first trial gave promise of great usefulness. In a recent issue of the *Pacific Rural Press* there is the following note in regard to the use of this process:

As we have frequent inquiries as to what has become of the carbonic acid process of fruit keeping during shipment, we state that President Wooster, of the San Jose Board of Trade, recently said to an interviewer that the carbonic acid system of transporting fresh fruit is covered by a patent held by Mr. Hayford, of San Jose, to keep a car of fruit during transit. Mr. Wooster sent one experimental car last year to Chicago. He says the car was out eleven days and was for three days in the Chicago freight yards without ice or a renewed supply of gas. During this time it jolted around in switching, and yet when the fruit went to the block at the fruit auctions with carloads of fruit shipped in ice at six times the price, it brought the highest price. In shipping fruit under this patent, cylinders full of gas are placed at either end of the car and a jet of gas is constantly playing over the fruit. It is intended to test the process on a larger scale this season.

WHILE a little fellow was gazing out of the open window of a railroad car his father slipped the hat off the boy's head in such a way as to make his son believe that it had fallen out of the window. The boy was very much upset by his supposed loss, when his father consoled him by saying that he would "whistle it back." A little later he whistled and the hat reappeared. Not long after the little lad seized upon his father's hat, and flinging it out of the window, shouted, "Now, papa, whistle your hat back again!"

GRUBS AT STRAWBERRY ROOTS.

Alexander MacLellan in the *Florists' Exchange* says:

I have found nitrate of soda a sure cure, or, rather, a preventive of destruction to strawberry plants, by the larvae of the May beetle. My plan is to give a light application, sowing just before rain. Of course it could be applied in solution. I have also used the soda on asters where the grubs had commenced work with like good effect. Of course this could be used on any garden crop, but don't give too much at a time, rather repeat the dose in the course of three or four weeks. As the soda induces a rank vegetable growth it will be well to use it sparingly where flowers are wanted, such as on sweet peas.

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THE PAWPAW TREE.

The papaya or pawpaw tree is a native of the Sandwich Islands. Botanically it is known as *Carica papaya*. The milky juice of this tree has the remarkable property of softening tough meats. Under date of May 15th, 1895, Leigh H. Irvine writes a letter to the *Scientific American*, which that journal has lately published, giving an experience in the use of the leaves and juice:

In company with Lieut. John F. Bowler, late of the ex-queen's dragoons, I sought a noble papaya grove along the sandy beach of the famous Waikiki watering place. We gathered a bunch of stems and leaves from a lusty tree which had grown from seed planted only six months before. It was a noble specimen about twenty feet high, and its seven-lobed leaves were about two feet in diameter. At so young an age the luscious yellow melon-like fruit hung in golden clusters from the tree's long and crooked branches. Before we expressed the juice of the leaves and stems we sat beneath the inviting shade and each ate one of the melons, which were delicious and not unlike cantelopes in appearance and consistency, though there was little similarity in taste. The fruit has a peachy flavor and is said to be a fine remedy for dyspepsia.

We readily secured about two ounces of the acrid, milky juice from our harvest. Taking it home, we put a few drops into a kettle of boiling water with a very tough fowl which had been gathered in for the experiment. It had been boiling for over an hour without becoming tender. The result of the papaya juice was magical. The papain, or active principal of it, dissolved the tissues at once and made the meat tender and palatable. A piece of very tough beefsteak was then wrapped in the leaves over night, and it was a tender morsel for breakfast. The natives here say the same results are obtained by hanging the meat in the tree among the saponaceous leaves. The mysterious juice

differs from animal pepsin, in that its proteolytic action is not arrested or even delayed in neutral or alkaline solutions, as is the case with so many substances that enter the stomach. Its active principle is technically known as papayin, papayotin, or caracin, and there is no doubt that the Hawaiians have long known its value.

OUR DUTY TOWARDS SPANIARD AND CUBAN.

Secretary Olney's first important act in the State Department was the issue of a proclamation warning American citizens against participating directly or indirectly in the Cuban revolution. This proclamation was evoked by the reports of considerable activity, on the Florida coast and elsewhere in the South, in the fitting out of small expeditions in aid of the patriots who are trying to throw off the Spanish yoke. The action of the State Department was immediately followed by a corresponding energy in the naval department, and Secretary Herbert forthwith dispatched a vessel to patrol the Florida coast. We are not at war with Spain; and it becomes the duty of our government under the well-known rules of international law, no less than our express treaty obligations, to exercise a reasonable diligence in order to prevent the use of our territory as a base of operations by persons engaged in hostilities against the Spanish government. It must be remembered, however, that having duly abstained from overt acts, we cannot be prevented from entertaining the most lively sympathy for the Cubans. Nor is our government under obligations to incur any great or unreasonable expense in order to help Spain hold in subjection an American community which ought to have its freedom. The moral aspects do not resemble in the faintest degree those of England's conduct toward this country during our civil war. Cuba is in America, not in Europe. We in the United States are the purchasers of Cuba's entire exports. Cuba's connection with Spain has only been maintained by repression and military force. Whenever the Cubans will have formed a provisional government which can show that it has the support of the people of the island and that it is in tolerably complete control of the local situation, it will be the duty of our government to recognize Cuban independence, no matter how loudly Spain may bluster and protest. We do not believe that Mr. Olney and President Cleveland hold any other than the sound and clear American view of the situation. They must use all reasonable endeavor to prevent the departure of filibustering expeditions from our coast. They may with perfect propriety feel an ardent hope that Cuba will win her independence, but they could not express any such hope without giving offense to a power with which we are on friendly relations.—From "The Progress of the World," *July Review of Reviews*.

"ONE day," said a well-known dentist, "a young lady came to me for some dentistry. Her mother came with her and remained sitting on a sofa in the room. As she sat there she talked so incessantly that I became nervous, and hardly knew whether I was conducting the operation properly. Presently the woman began to talk about her own teeth, and to complain of a certain vague distress that she often felt in them. I saw that my opportunity had come. I called the lady to the chair, looked at her teeth, and then applied a liberal brushing of iodine. 'Now,' I said, 'if you will go back to the sofa and keep your mouth closed so as to exclude the air from your gums, I think you will have no further trouble.' From that time on she sat with her hands over her mouth, and did not, it is needless to say, disturb me any more."

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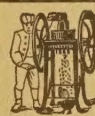
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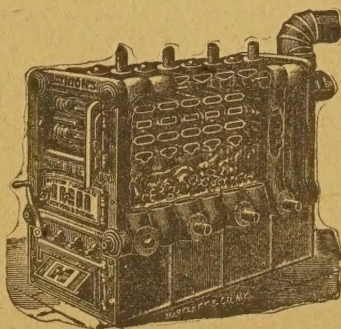
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TREATMENT OF SWEET WILLIAMS.

On page 14 of this number the very practical remarks of A. D. are given in reference to this favorite plant. Those remarks are well supplemented by the following, taken from *Gardening*:

An amateur asks: "What is the proper treatment of *Dianthus barbatus* in summer? I have one exceedingly good, dwarf, rich crimson variety, but out of one dozen plants started with in the spring, eight only remain, and only two of these are vigorous."

Plant them out where the ground is a little moist and thinly shaded. So prone are Sweet Williams to die off with neck rot in summer that it is well to plant them in a bed or corner by themselves where they can get special attention. Indeed the safest way is to sow the seed thinly in rows or hills where you wish to have the plants grow and bloom, and thin out the seedlings. They keep healthier in this way. Although it is a very common flower and runs wild in some old farm gardens, few kinds of plants die out in summer more than it does. We raise it fresh from seed every year.

THE SADDATH PEAR.

A new hardy variety of pear by this name is introduced the present season. It is a handsome, large-sized, yellowish fruit, somewhat the form of Duchess. It originated in Illionis and has fruited for the past seventy-five years, and trees have been grafted from it for many years. Has never shown blight or other disease, and bears every year. Quality good, to very good.

The rain falls upon the just and the unjust alike. The unjust, however, are quicker to steal umbrellas and generally fare best in a shower.—*Picayhne*.



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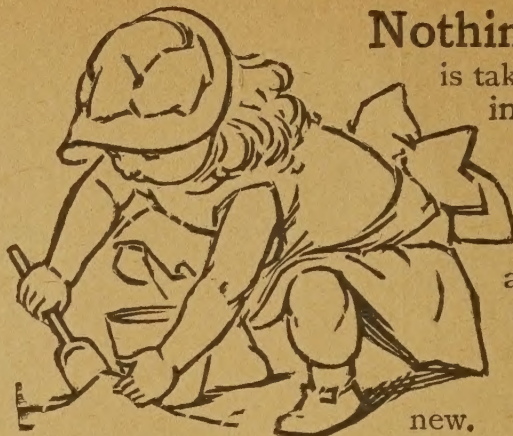


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Peddlers and some unscrupulous grocers will tell you, "this is as good as" or "the same as Pearl-ine." IT'S FALSE—Pearline is never peddled, if your grocer sends you an imitation, be honest—send it back. 363 JAMES PYLE, N.Y.

CHRYSANTHEMUM BLACK APHIS.

An inquiry and an answer in a late number of *Gardening* is as follows:

"My chrysanthemums are covered with small black lice. Whaleoil soap and insect powder don't touch them. What will?"

We use tobacco tea and tobacco powder. The tea we get by steeping tobacco stems over night in a pail or tub of water. Next day we take this liquor in a pail to the chrysanthemum patch and with a sponge swab the ends of every affected shoot, and in an hour or more swab or syringe them with clean water; if too strong it will injure the shoots. When the plants are wet with dew get some very dry fresh tobacco powder or snuff, put into a powder bellows and puff it on to the affected plants. In the greenhouse by repeated fumigation with tobacco we can kill these insects, but out side fumigation is impracticable; indeed it is a troublesome pest to get rid of and requires repeated efforts to destroy it.

The reply here given to the question will undoubtedly benefit many an inexperienced chrysanthemum grower. But the question will at once be asked how one may know when the tobacco tea is strong enough to kill the insects and not too strong to injure the plants. The answer is, the tea must be tested both on the insects and on the plants. Take a leaf with some of the insects on it and dip it into the tea as prepared and note the effect; if it kills the insects it is strong enough, and if after an hour the leaf has not changed color it will not injure the plants; if too strong the leaf will turn brown as if burned. We have never tried kerosene emulsion on this insect, but with our experience in the use of it on other aphides we should expect it to be effectual on the black aphid of chrysanthemums.

AUNT ANN—"Do you mean to tell me that them Hiffies actooally served claret punch at their gatherin'? How wicked!"

MAUD (who sampled some of the punch—"Not wicked, aunty, merely weak."—*Cincinnati Tribune*).

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In habit the plant is like the well-known White Japan Anemone; the same strong growth and healthy foliage, and perhaps even more abundant blooming. The flowers, which are 2½ to 3 inches across, have several rows of white sepals, and the blooms last much longer than those of the single variety. The plants grow quite evenly in height, from 2½ to 3 feet, and with large and plentiful foliage. In a word it may be said that this new double variety, which has been named "Whirlwind," has all the free blooming and other good qualities of the Single White or Honorine Jobort, and the additional ones of greater hardiness of plants, while the blooms are more lasting. These characteristics are decided advantages and must make a demand for it on all ornamental grounds. Hardy, strong and free bloomer.

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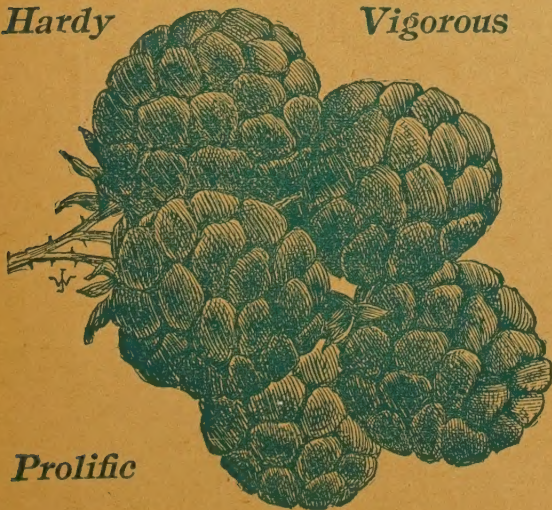
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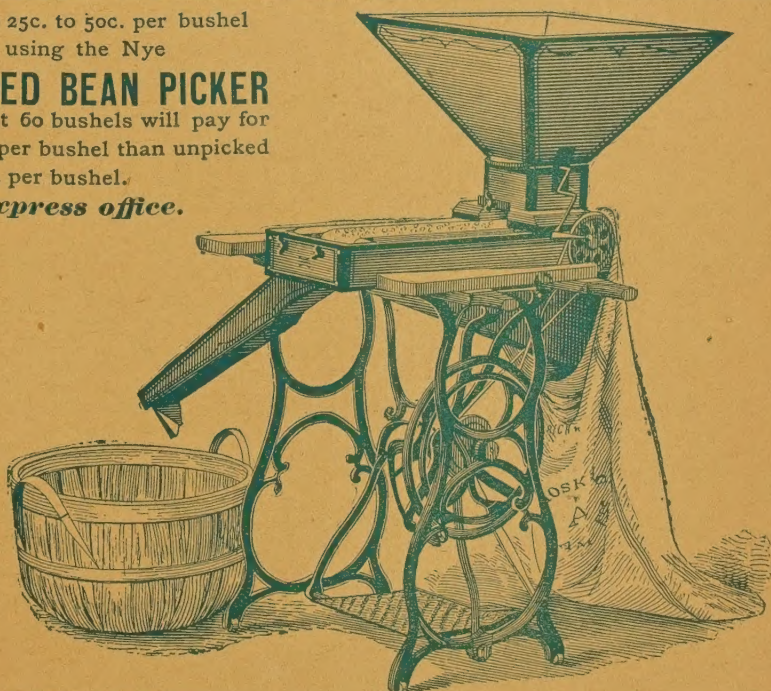
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